

DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
REGISTERED ENGINEER - CIVIL					
PLANS APPROVAL DATE					
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.					

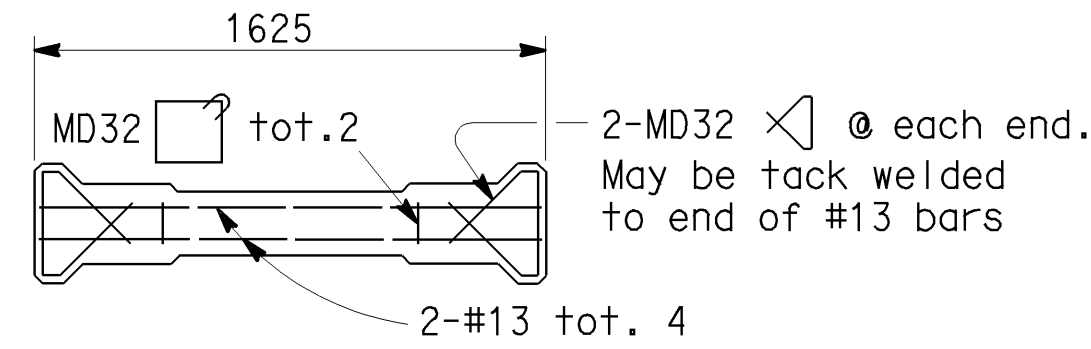
REGISTERED PROFESSIONAL ENGINEER

No. _____

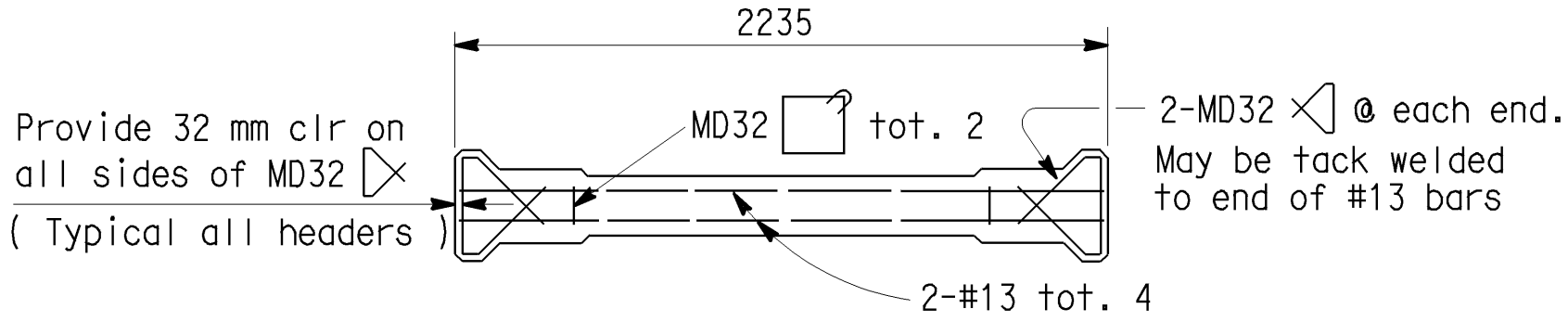
Exp. _____

CIVIL

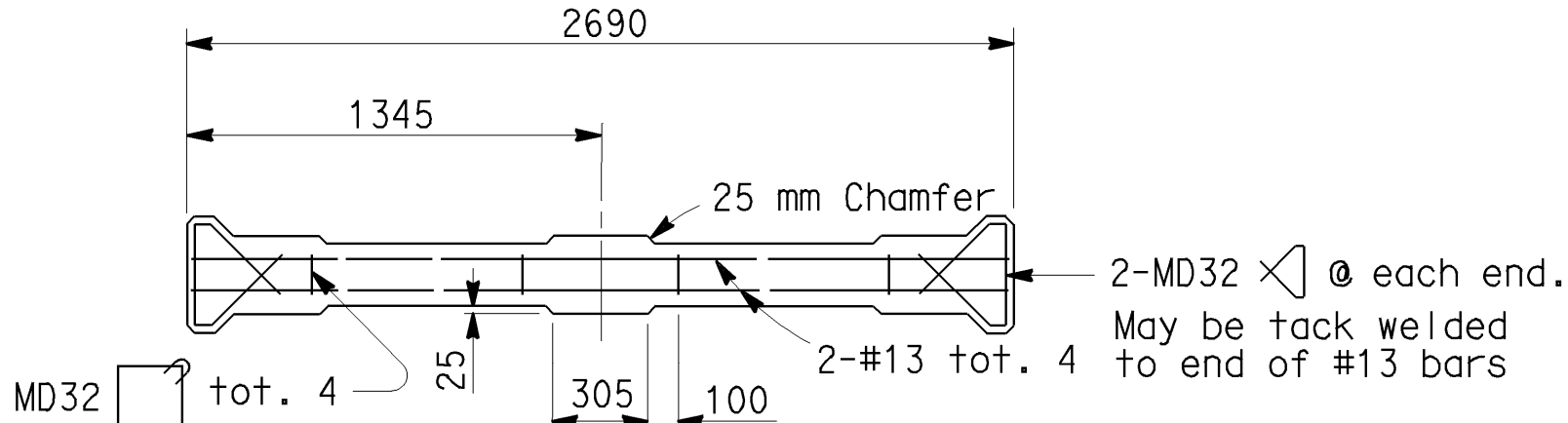
STATE OF CALIFORNIA



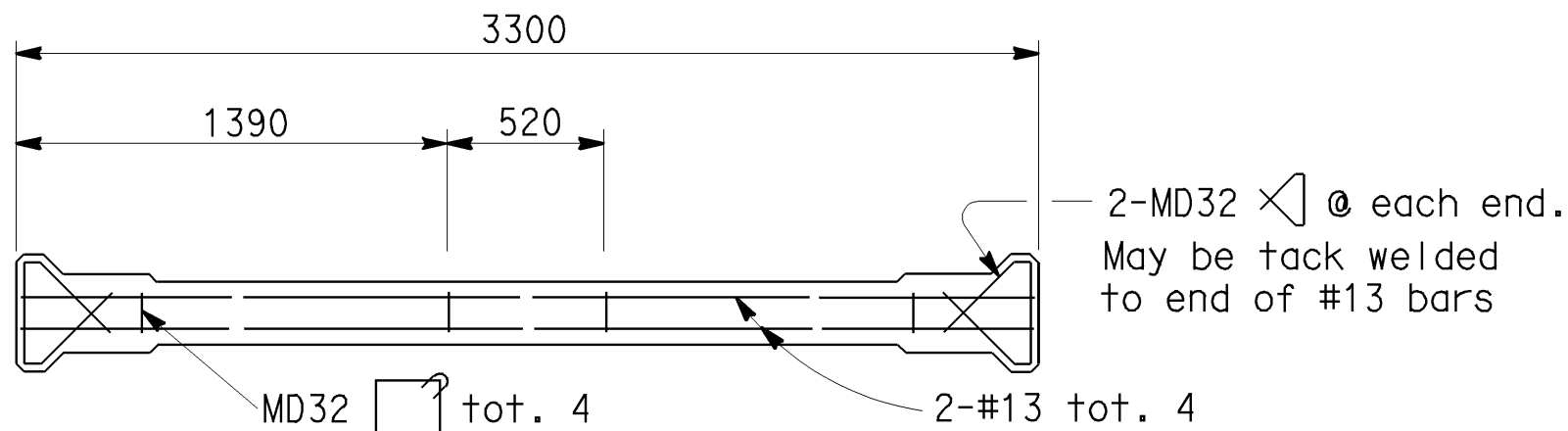
1370 mm HEADERS



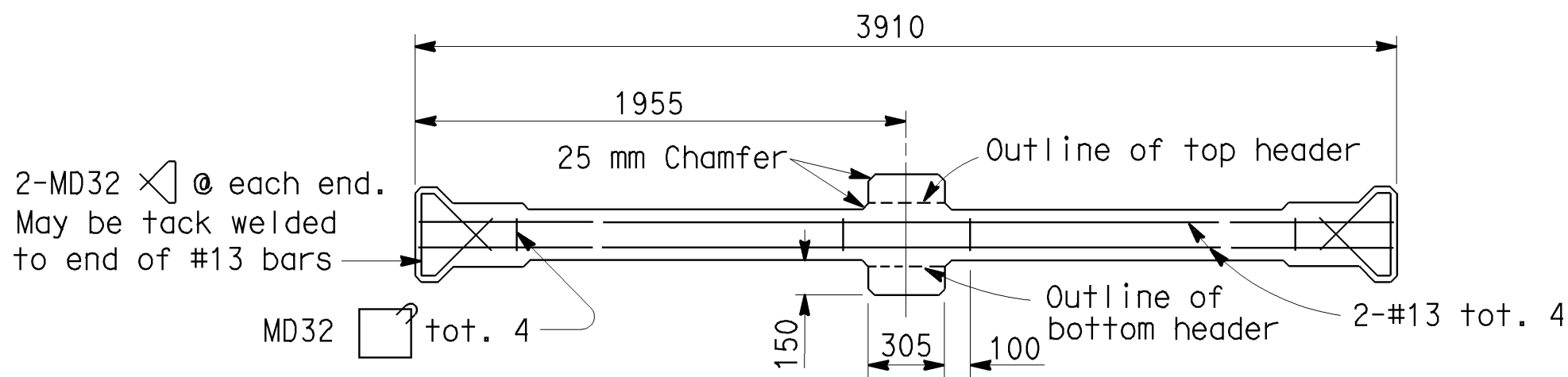
1980 mm HEADERS



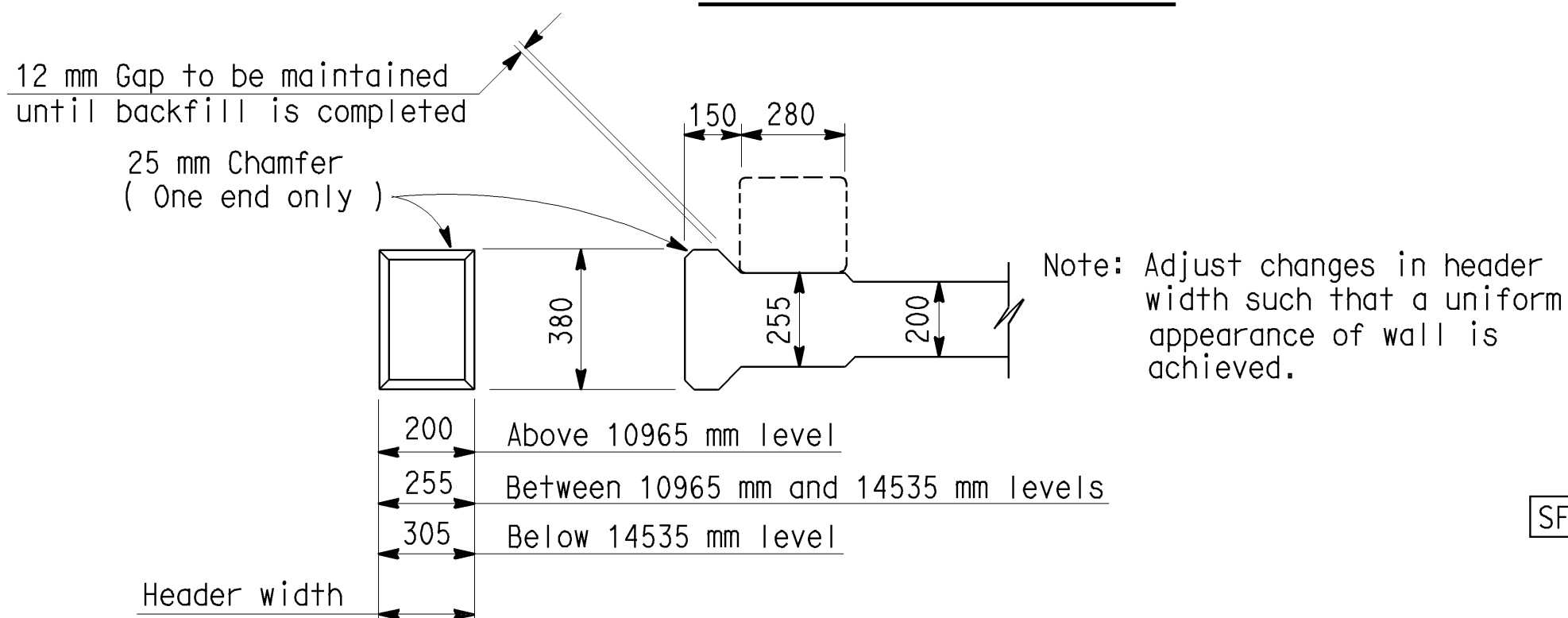
2440 mm HEADERS



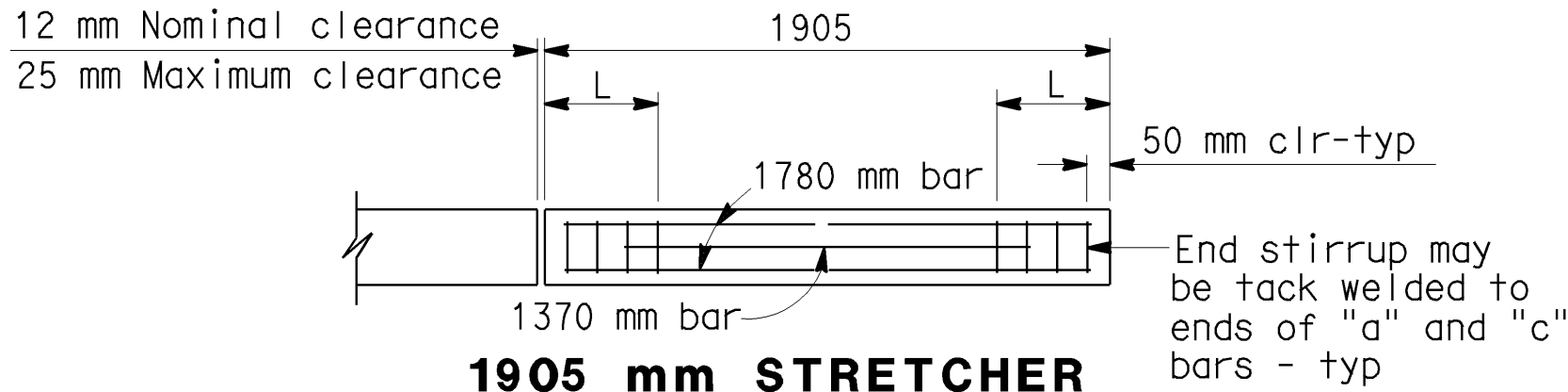
3050 mm HEADERS



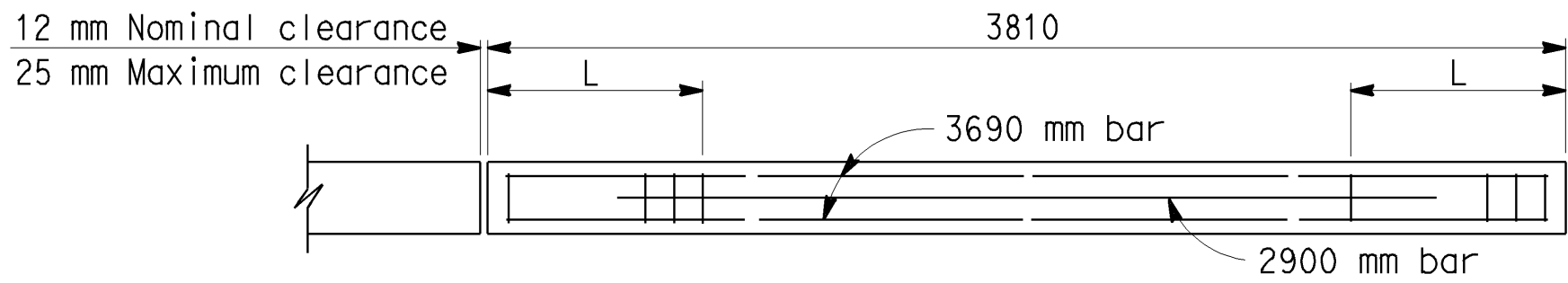
3660 mm HEADERS



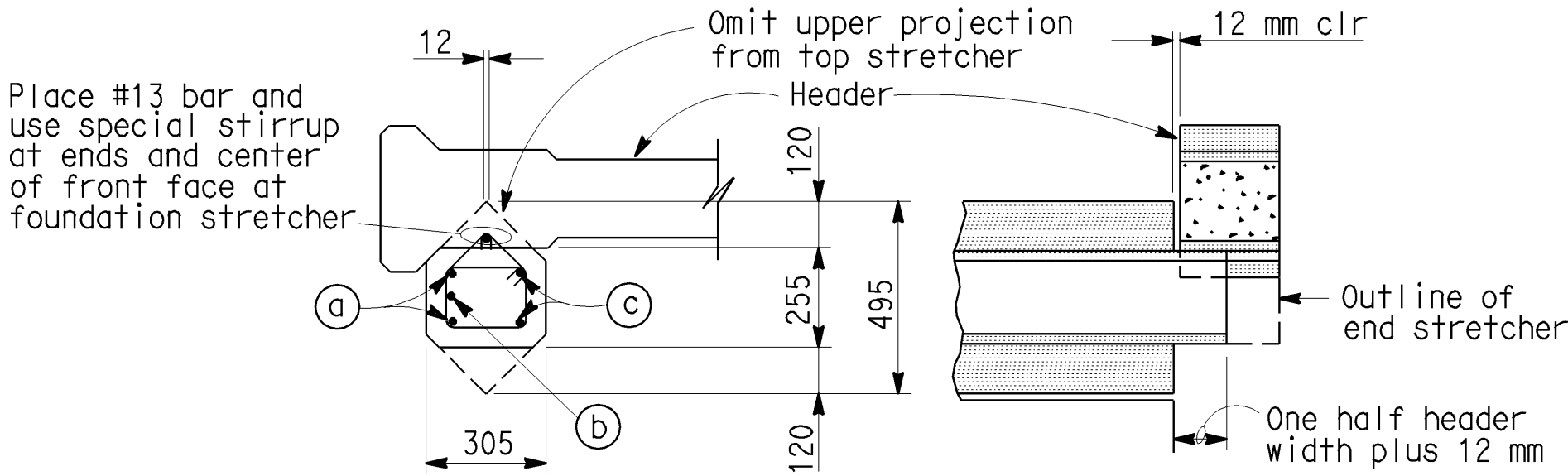
HEADER DETAILS



1905 mm STRETCHER



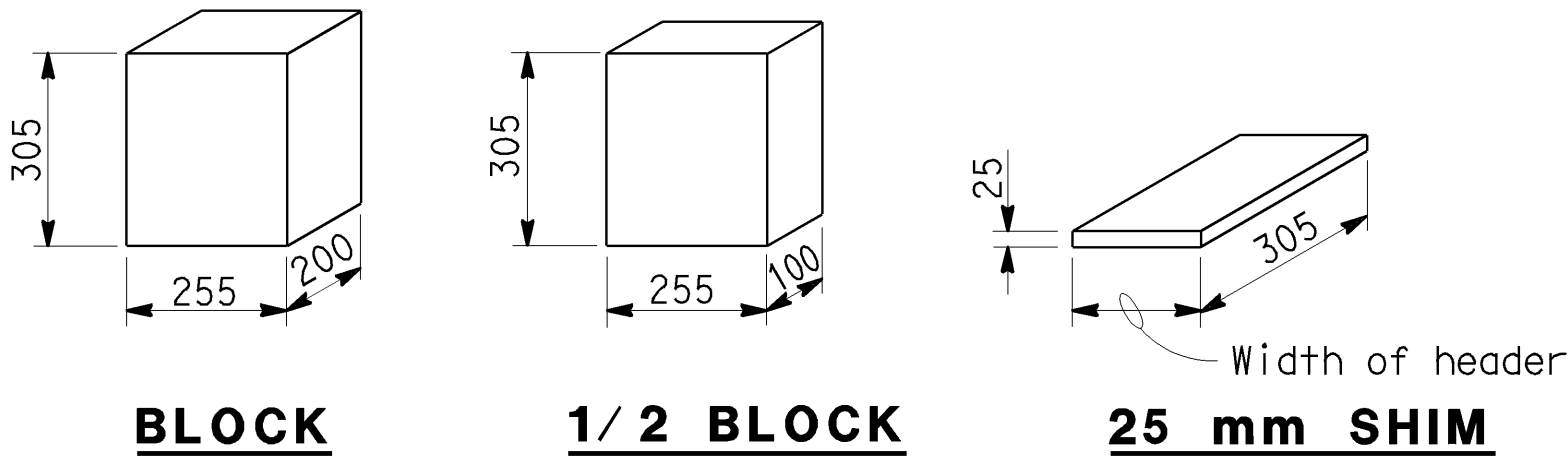
3810 mm STRETCHER



CLOSED FACE STRETCHER

Note: Closed face stretcher details same as open face stretcher except as noted.

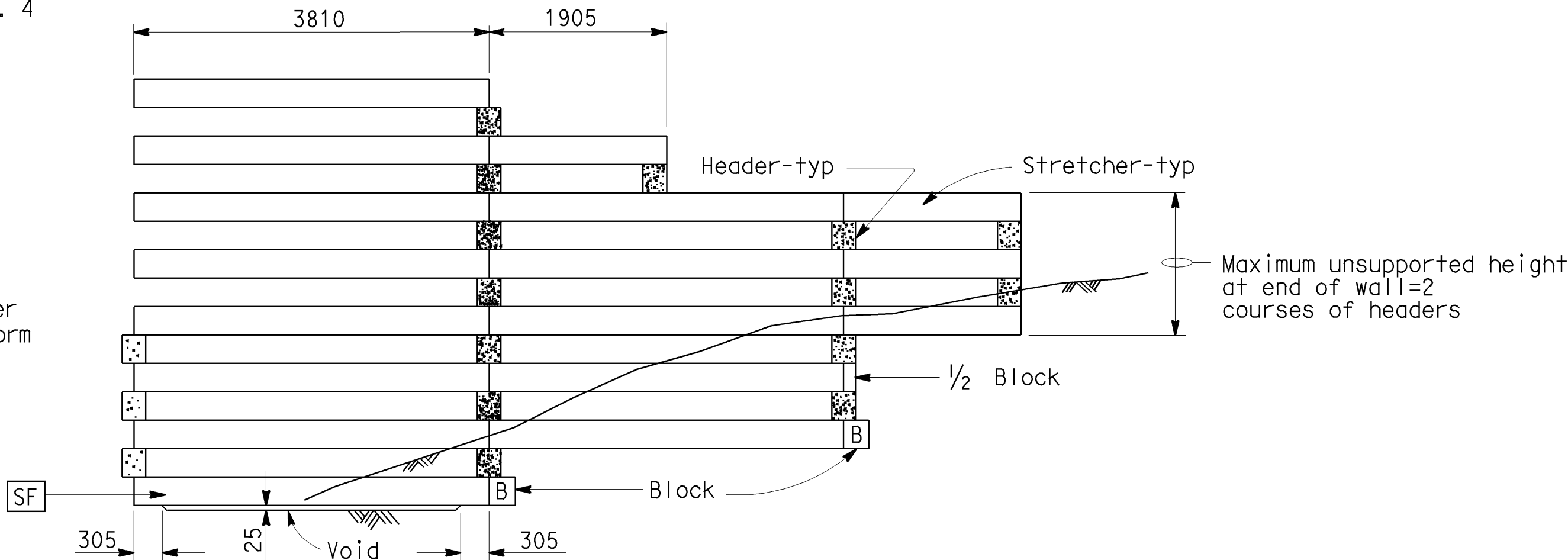
STRETCHER DETAILS



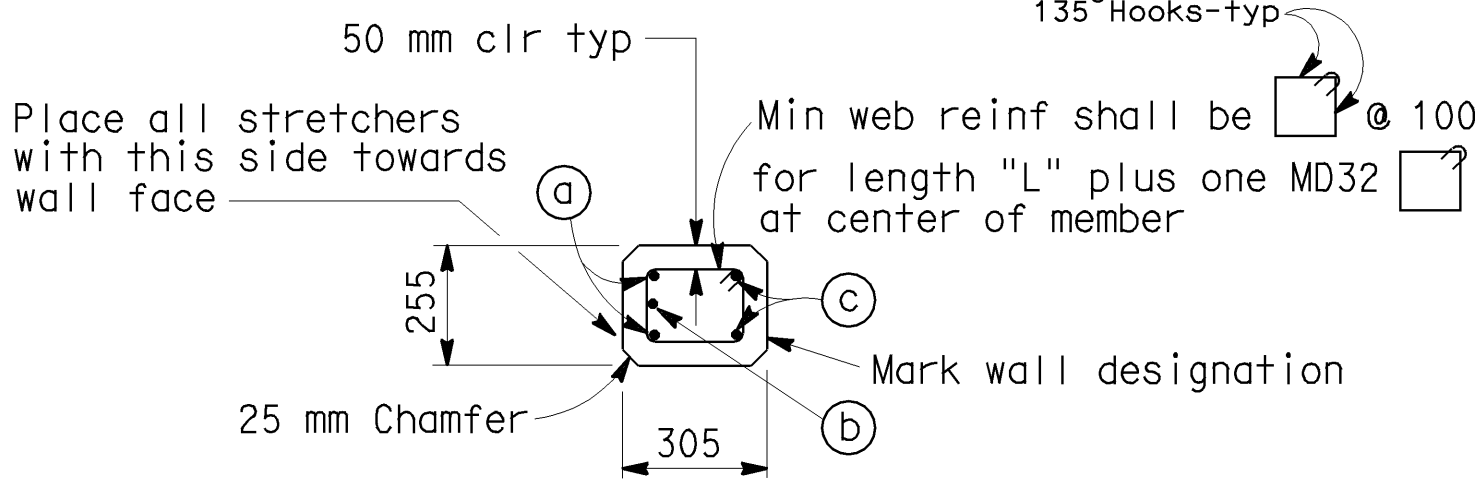
BLOCK

1/2 BLOCK

25 mm SHIM



BLOCK & STRETCHER PLACEMENT DETAILS



SECTION

* Required concrete compressive strength for stretchers increases with increased distance from the top of the crib wall as follows:

Less than or equal to 6415 mm, f'c = 28 MPa
Greater than 6415 mm, f'c = 35 MPa

STRETCHER BAR SIZE DATA															
WALL TYPE	* DESIGN f'c MPa	OPEN FACE						CLOSED FACE						L	
		1905			3810			1905			3810			1905 mm	3810 mm
		(a)	(b)	(c)	(a)	(b)	(c)	(a)	(b)	(c)	(a)	(b)	(c)		
I-IV	28	4	4	4	6		5	4	4	4	6		5	360	360
V	28	4	4	4	6	6	6	4	4	4	6	6	5	460	660
VI-VIII	35	4	4	4	7	6	6	4	4	4	7	6	5	560	660
IX-XI	35	4	4	4	7	6	6	4	4	4	7	6	5	560	860

- [S] Foundation stretchers placed thus on a 100 mm layer of loose structure backfill material. Details and reinforcement are the same as other stretchers.
- [B] Blocks - Blocks are required above each foundation stretcher for minimum of two courses above the foundation stretcher. Blocks are required behind the front stretchers from the base to the upper limits shown for Type VII through Type XII walls. Blocks are required under the rear stretchers of the top tier for the limits shown for Type III, Type IV, Type VI, and Type VII walls.
- [SF] Front face foundation stretcher, place as shown.

GENERAL NOTES

- fy=420 MPa except 450 MPa in stirrups. f'c=28 MPa in headers. See chart for stretchers. f'c indicates the concrete compressive strength at 28 days.
- Bearing surfaces: Concrete to concrete bearing surfaces shall be finished to a smooth plane. The gap between bearing surfaces shall not exceed 3 mm. Where a gap of 1.5 mm to 3 mm exists, a 1.5 mm thick pad of asphalt felt* shall be placed between the bearing surfaces. For wall Types VIII through XII, a 1.5 mm thick asphalt felt* pad shall be placed between all bearing surfaces below the 9945 mm level.* Or may use sheet neoprene.
- Dimensional tolerance: To allow for imperfect fit in the assembly of the units, members may be manufactured to dimensions 3 mm less than the nominal dimensions shown on this plan.
- Supports for reinforcements: If members are to be steam cured, supports for reinforcements shall be stainless steel containing at least 16% chromium.
- Special members at utility openings: Where an opening is specified in the face of wall for pipes or other utilities, special length stretchers and additional headers will be required.
- Patent rights: The right to use the shapes shown hereon, solely for projects administered by the State of California within the territory of the State, has been granted to the State of California by assignment dated August 28,1969.
- Closed face stretchers are required on front face of vertical wall.
- MW32 wire may be substituted for MD32 wire.
- Continuous wire @ 100 mm max. pitch providing equivalent area may be substituted for stirrups in stretchers. Ends of wire shall be anchored with a 135° hook.
- For non-tangent wall alignment, special length stretchers may be required.

NO SCALE

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN

STANDARD DRAWING					
RELEASE DATE	9/8/97	DESIGN BY	W. BAKER	CHECKED	J.C. MOESE
FILE NO.	xs12-010-4	DETAILS BY	R. YEE	CHECKED	J.C. MOESE
		SUBMITTED BY	J.C. MOESE	DRAWING DATE	9/97
				OFFICE CHIEF	Shannon Post

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO.
KILOMETER POST

REINFORCED CONCRETE CRIB WALL SHEET 4 OF 5
HEADER AND STRETCHER DETAILS